## SEQUENCE LISTING

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<110> De Leys, Robert
<120> PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
      TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
      A PROCESS FOR DETERMINATION OF ANTIBODIES OF
      BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY IMPORTANT
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<140> 09/576,824
<141> 2000-05-23
<150> 08/723,425
<151> 1996-09-30
<140> 09/146,028
<141> 1993-11-22
<150> PCT/EP93/00517
<151> 1993-03-08
<150> EP 92400598.6
<151> 1992-03-06
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<223> modified site

Arg Pro Asp Tyr Asn Xaa 20

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Val Asn Thr Xaa
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Ser Gln Arg Ile Gln Leu Val Asn Thr Xaa 20 25

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Gly Leu Val Ser Leu Phe Ser Xaa
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Val Asn Thr Xaa
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1
Ser Gln Lys Ile Gln Leu Val Asn Thr Xaa
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Val Asn Thr Xaa
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Ser Leu Val Ser Trp Leu Ser Xaa
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Ser Gln Lys Ile Gln Leu Val Asn Thr Xaa
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Lys Gln Asn Ile Gln Leu Ile Asn Thr Xaa
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Gly Leu Val Ser Leu Phe Thr Pro Gly Ala Lys Gln Asn Ile Gln Leu

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30

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Gly Leu Val Ser Leu Phe Ser Arg Gly Ala Lys Gln Asp Ile Gln Leu
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Arg Gln Lys Ile Gln Leu Ile Asn Thr Xaa
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                                     10
Gln Gly Leu Leu Gln Xaa
             20
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<400> 97

<222> (22)

<223> modified site

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Xaa Ile Ala Glu Met Leu Lys Ser Lys Ile Gln Gly Leu Leu Gln Gln
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                                     10
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                 5
                                     10
Asp Ile Gln Pro Ala Xaa
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Lys Lys Arg Phe Pro Xaa
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Lys Arg Pro Asp Tyr Xaa
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   Pro Pro Arg Arg Arg Xaa
                20
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   <211> 22
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Gln Gln Tyr Asp Glu Xaa 20

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<212> PRT
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Gln Phe Lys Glu Lys Xaa
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  1
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<210> 107 <211> 33 <212> PRT <213> Hepatitis C virus

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Xaa Ile Pro Asp Arg Glu Val Leu Tyr Arg Gly Gly Lys Lys Pro Asp
Tyr Glu Pro Pro Val Gly Gly Arg Arg Pro Gln Asp Val Lys Phe Pro
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<211> 33
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Xaa Trp Ala Arg Pro Asp Tyr Asn Pro Pro Gly Gly Gln Phe Lys Gln
                                                           15
Lys Ala Leu Gly Leu Gly Ser Gly Val Tyr Leu Leu Pro Arg Arg Gly
             20
Xaa
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<210> 109 <211> 33 <212> PRT <213> Hepatitis C virus

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Pro Tyr Ile Glu Gln Ser Gly Pro Val Val His Gly Cys Pro Leu Pro
                                 25
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Xaa
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Xaa Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Xaa
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<211> 15
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<223> modified site : NH2
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Xaa Gly Gly Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Xaa
                  5.
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Xaa Ser Trp Gly Cys Ala Phe Arg Gln Val Cys Xaa
<210> 113
<211> 15
<212> PRT
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<400> 113
Xaa Gly Gly Ser Trp Gly Cys Ala Phe Arg Gln Val Cys Xaa
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<210> 114
<211> 25
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<213> Human immunodeficiency virus
<220>
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<223> modified site : Ac

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<222> (25)
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Xaa Tyr Asn Lys Arg Lys Arg Ile His Ile Gly Pro Gly Arg Ala Phe
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Tyr Thr Thr Lys Asn Ile Ile Gly Xaa
            20
<210> 115
<211> 26
<212> PRT
<213> Human immunodeficiency virus
<220>
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<223> modified site : NH2
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Xaa Gly Gly Tyr Asn Lys Arg Lys Arg Ile His Ile Gly Pro Gly Arg
            5 10
Ala Phe Thr Thr Lys Asn Ile Ile Gly Xaa
            20
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 <212> PRT
 <213> Hepatitis C virus
 <400> 116
 Ser Gln His Leu Pro Tyr Ile Glu Gln Gly Met Met Leu Ala Glu Gln
            5
 Phe Lys Gln Lys
 <210> 117
 <211> 20
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<212> PRT

<213> Hepatitis C virus

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<400> 117
Leu Arg Lys Ser Arg Arg Phe Ala Gln Ala Leu Pro Val Trp Ala Arg
                 5
Pro Asp Tyr Asn
             20
<210> 118
<211> 19
<212> PRT
<213> Hepatitis C virus
<400> 118
Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn Arg Arg Pro Gln Asp Val
                                      10
                  5
Lys Phe Gly
<210> 119
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 119
Arg Asn Thr Asn Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly
                                      10
Gln Ile Val Gly
 <210> 120
 <211> 20
 <212> PRT
 <213> Hepatitis C virus
 <400> 120
 Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
                                      10
 Ile Pro Lys Val
              20
 <210> 121
 <211> 20
 <212> PRT
 <213> Hepatitis C virus
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<400> 121

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Ile Ile Pro Asp Arg Glu Val Leu Tyr Arg Glu Phe Asp Glu Met Glu
1 5
                                10
Glu Cys Ser Gln
<210> 122
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 122
Glu Thr Trp Lys Lys Pro Asp Tyr Glu Pro Pro Val Val His Gly Cys
                                10
                                                  1.5
Pro Leu Pro Pro
          20
<210> 123
<211> 21
<212> PRT
<213> Hepatitis C virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : NH2
<220>
<221> VARIANT
<222> (21)
<223> modified site : CONH2
<400> 123
Xaa Met Ser Thr Ile Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr
                     10
                                                  15
1 · 5
Asn Arg Pro Gln Xaa
           20
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<211> 24 <212> PRT <213> Hepatitis C virus <220> <221> VARIANT <222> (1) <223> modified site : NH2 <220>

<210> 124

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<220>
<221> VARIANT
<222> (24)
<223> modified site : CONH2
<400> 124
Xaa Met Ser Thr Ile Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr
                           ... 10
Asn Arg Pro Gln Gly Gly Xaa Xaa
            20
<210> 125
<211> 34
<212> PRT
<213> Hepatitis C virus
<400> 125
Gly Glu Thr Tyr Thr Ser Gly Gly Ala Ala Ser His Thr Thr Ser Thr
1 5
                                   10
Leu Ala Ser Leu Phe Ser Pro Gly Ala Ser Gln Arg Ile Gln Leu Val
                                                   30
            20
Asn Thr
<210> 126
<211> 34
<212> PRT
<213> Hepatitis C virus
<400> 126
Gly His Thr Arg Val Ser Gly Gly Ala Ala Ser Asp Thr Arg Gly
Leu Val Ser Leu Phe Ser Pro Gly Ser Ala Gln Lys Ile Gln Leu Val
                                                   30
                                25
            20
Asn Thr
```

<221> VARIANT <222> (23)

<210> 127 <211> 34 <212> PRT

<213> Hepatitis C virus

<223> modified site : Lys (Bio)

```
<400> 127
Gly His Thr Arg Val Thr Gly Gly Val Gln Gly His Val Thr Cys Thr
1 5 10 15
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Leu Thr Ser Leu Phe Arg Pro Gly Ala Ser Gln Lys Ile Gln Leu Val 20 25 30

Asn Thr

<210> 128 <211> 34 <212> PRT <213> Hepatitis C virus

<400> 128 Gly His Thr His Val Thr Gly Gly Arg Val Ala Ser Ser Thr Gln Ser 1 5 10 15

Leu Val Ser Trp Leu Ser Gln Gly Pro Ser Gln Lys Ile Gln Leu Val

Asn Thr

<210> 129 <211> 34 <212> PRT <213> Hepatitis C virus

<400> 129 Gly Asp Thr His Val Thr Gly Gly Ala Gln Ala Lys Thr Thr Asn Arg 1 5 10 15

Leu Val Ser Met Phe Ala Ser Gly Pro Ser Gln Lys Ile Gln Leu Ile 20 25 30

Asn Thr

<210> 130 <211> 34 <212> PRT <213> Hepatitis C virus

<400> 130 Ala Glu Thr Tyr Thr Ser Gly Gly Asn Ala Gly His Thr Met Thr Gly 1 5 10 15

Ile Val Arg Phe Phe Ala Pro Gly Pro Lys Gln Asn Val His Leu Ile 20 25 30

Asn Thr

```
<210> 131
 <211> 34
 <212> PRT
 <213> Hepatitis C virus
 <400> 131
 Ala Glu Thr Ile Val Ser Gly Gly Gln Ala Ala Arg Ala Met Ser Gly
 Leu Val Ser Leu Phe Thr Pro Gly Ala Lys Gln Asn Ile Gln Leu Ile
            20
Asn Thr
 <210> 132
 <211> 34
 <212> PRT
 <213> Hepatitis C virus
 <400> 132
 Ala Glu Thr Tyr Thr Thr Gly Gly Ser Thr Ala Arg Thr Thr Gln Gly
                                 10
 Leu Val Ser Leu Phe Ser Arg Gly Ala Lys Gln Asp Ile Gln Leu Ile
                   30
 Asn Thr
 <210> 133
 <211> 20
 <212> PRT
 <213> Hepatitis C virus
<400> 133
 Met Ser Thr Ile Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
                 5 10
Arg Arg Pro Gln
```

<210> 134 -<211> 15

<212> PRT

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<4.00> 134
Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn Arg Arg Pro
                                     10
<210> 135
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 135
Arg Asn Thr Asn Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly
                              10
Gln Ile Val Gly
<210> 136
<211> 32
<212> PRT
<213> Hepatitis C virus
<400> 136
Met Ser Thr Ile Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
                                     10
 1 ... ... ... 5
Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
             20
<210> 137
<211> 20
<212> PRT
 <213> Hepatitis C virus
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Val Gly Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val

10

15

<210> 138 <211> 20 <212> PRT <213> Hepatitis C virus

20

<400> 137

Arg Ala Thr Arg

<213> Hepatitis C virus

```
Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala Thr Arg Lys Thr
Ser Glu Arg Ser
<210> 139
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 139
Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
                                     10
Ile Pro Glu Val
             20
<210> 140
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 140
Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro Ile Pro Glu Val Arg Arg
                                     10
                                                         15
Pro Glu Gly Arg
             20
 <210> 141
 <211> 39
 <212> PRT
 <213> Hepatitis C virus
 Gly Gly Val Tyr Leu Leu Pro Arg Gly Pro Arg Leu Gly Val Arg.
                 5
  1.
```

Ala Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln

<210> 142 <211> 20

Pro Ile Pro Lys Val Arg Arg

```
<212> PRT
<213> Hepatitis C virus
<400> 142
Ser Gln His Leu Pro Tyr Ile Glu Gln Gly Met Met Leu Ala Glu Gln
                                    10
Phe Lys Gln Lys
        . 20
<210> 143
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 143
Leu Ala Glu Gln Phe Lys Gln Lys Ala Leu Gly Leu Leu Gln Thr Ala
                                    10
Ser Arg Gln Ala
             20
<210> 144
<211> 32
<212> PRT
<213> Hepatitis C virus
<400> 144
Ser Gln His Leu Pro Tyr Ile Glu Gln Gly Met Met Leu Ala Glu Gln
Phe Lys Gln Lys Ala Leu Gly Leu Leu Gln Thr Ala Ser Arg Gln Ala
                                                     30
                                 25
<210> 145
```

```
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 146
Leu Arg Lys Ser Arg Arg Phe Ala Gln Ala Leu Pro Val Trp Ala Arg
                                   10
                                         Pro Asp Tyr Asn
            20
<210> 147
<211> 32
<212> PRT
<213> Hepatitis C virus
<400> 147
Glu Asp Glu Arg Glu Ile Ser Val Pro Ala Glu Ile Leu Arg Lys Ser
Arg Arg Phe Ala Gln Ala Leu Pro Val Trp Ala Arg Pro Asp Tyr Asn
                                                   3.0
            20
<210> 148
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 148
Leu Ser Gly Lys Pro Ala Ile Ile Pro Asp Arg Glu Val Leu Tyr Arg
                                                       15
                                   10
```

o dew and a

Glu Phe Asp Glu

<210> 146

```
<210> 150
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 150
Ser Gln His Leu Pro Tyr Ile Glu Gln Gly Met Met Leu Ala Glu Gln
                                      10
Phe Lys Gln Lys
             20
<210> 151
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 151
Ala Ser Arg Ala Ala Leu Ile Glu Glu Gly Gln Arg Ile Ala Glu Met
                                      10
Leu Lys Ser Lys
             20
<210> 152
<211> 20
<212> PRT
<213> Hepatitis C virus
Leu Ala Glu Gln Phe Lys Gln Lys Ala Leu Gly Leu Leu Gln Thr Ala
                                  10
  1
Ser Arg Gln Ala
<210> 153
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 153
Ile Ala Glu Met Leu Lys Ser Lys Ile Gln Gly Leu Leu Gln Gln Ala
                                      10
Ser Lys Gln Ala
```

```
<210> 154
  <211> 23
  <212> PRT
  <213> Human immunodeficiency virus
  <400> 154
Asn Asn Thr Arg Lys Ser Ile His Ile Gly Pro Gly Arg Ala Phe Tyr
  Thr Thr Gly Glu Ile Ile Gly
                                                20
  <210> 155
  <211> 23
  <212> PRT
  <213> Human immunodeficiency virus
                                            and the second of the second o
  <400> 155
  Asn Asn Thr Arg Lys Ser Ile Tyr Ile Gly Pro Gly Arg Ala Phe His
                                     5 10
  Thr Thr Gly Arg Ile Ile Gly
                                        20
   <210> 156
   <211> 23 . . . . . .
   <212> PRT
   <213> Human immunodeficiency virus
   <400> 156
  Asn Asn Thr Thr Arg Ser Ile His Ile Gly Pro Gly Arg Ala Phe Tyr
   1 5 10
   Ala Thr Gly Asp Ile Ile Gly
                                                20 __
   <210> 157
   <211> 23
   <212> PRT
   <213> Human immunodeficiency virus
   <400> 157
   Tyr Asn Lys Arg Lys Arg Ile His Ile Gly Pro Gly Arg Ala Phe Tyr
                                                                                                                                    10
   Thr Thr Lys Asn Ile Ile Gly
```

```
<210> 158
<211> 23
<212> PRT
<213> Human immunodeficiency virus
<400> 158
Asn Asn Thr Arg Lys Ser Ile Thr Lys Gly Pro Gly Arg Val Ile Tyr
                5
Ala Thr Gly Gln Ile Ile Gly
             20
<210> 159
<211> 22
<212> PRT
<213> Human immunodeficiency virus
Asn Asn Thr Arg Arg Gly Ile His Phe Gly Pro Gly Gln Ala Leu Tyr
                                      10
                  5
Thr Thr Gly Ile Val Gly
             20
<210> 160
<211> 24
<212> PRT
<213> Human immunodeficiency virus
<400> 160
Asn Asn Thr Arg Lys Ser Ile Arg Ile Gln Arg Gly Pro Gly Arg Ala
Phe Val Thr Ile Gly Lys Ile Gly
             20
<210> 161
<211> 22
<212> PRT
<213> Human immunodeficiency virus
<400> 161
Gln Asn Thr Arg Gln Arg Thr Pro Ile Gly Leu Gly Gln Ser Leu Tyr
                  5
Thr Thr Arg Ser Arg Ser
```

```
<211> 21
<212> PRT
<213> Human immunodeficiency virus
Gln Ile Asp Ile Gln Glu Met Arg Ile Gly Pro Met Ala Trp Tyr Ser
                                                         15
Met Gly Ile Gly Gly
            20
<210> 163
<211> 23
<212> PRT
<213> Human immunodeficiency virus
<400> 163
Asn Asn Thr Arg Arg Gly Ile His Met Gly Trp Gly Arg Thr Phe Tyr
                                    10
Ala Thr Gly Glu Ile Ile Gly
            .20
<210> 164
<211> 22
<212> PRT
<213> Human immunodeficiency virus
<400> 164
Asn Lys Thr Val Val Pro Ile Thr Leu Met Ser Gly Leu Val Phe His
            . 5
 1
Ser Gln Pro Ile Asn Lys
             20
<210> 165
<211> 22
<212> PRT
<213> Human immunodeficiency virus
Asn Lys Thr Val Leu Pro Val Thr Ile Met Ser Gly Leu Val Phe His
                                     10
Ser Gln Pro Ile Asn Asp
             20
```

<210> 166 <211> 25

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<212> PRT
<213> Human T-cell lymphotropic virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : Bio
<400> 166
Xaa Gly Gly Val Leu Tyr Ser Pro Asn Val Ser Val Pro Ser Ser Ser
                  5
                                     10
 1
Ser Thr Leu Leu Tyr Pro Ser Leu Ala
             20
<210> 167
<211> 24
<212> PRT
<213> Human T-cell lymphotropic virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : Bio
<400> 167
Xaa Glý Gly Tyr Thr Cys Ile Val Cys Ile Asp Arg Ala Ser Leu Ser
                                                           15
Thr Trp His Val Leu Tyr Ser Pro
              20
 <210> 168
 <211> 25
 <212> PRT
 <213> Human T-cell lymphotropic virus
 <220>
 <221> VARIANT
 <222> (1)
 <223> modified site
 <400> 168
 Xaa Gly Gly Asn Ser Leu Ile Leu Pro Pro Phe Ser Leu Ser Pro Val
                                      10
 Pro Thr Leu Gly Ser Arg Ser Arg Arg
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<210> 169 <211> 39

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<212> PRT
<213> Human T-cell lymphotropic virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : Bio
<400> 169
Xaa Gly Gly Asp Ala Pro Gly Tyr Asp Pro Ile Trp Phe Leu Asn Thr
Glu Pro Ser Gln Leu Pro Pro Thr Ala Pro Pro Leu Leu Pro His Ser
                                 25
             20
Asn Leu Asp His Ile Leu Glu
  35
<210> 170
<211> 34
<212> PRT
<213> Human T-cell lymphotropic virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : Bio
<400> 170
Xaa Gly Gly Gln Tyr Ala Ala Gln Asn Arg Arg Gly Leu Asp Leu Leu
                                    10
                  5
Phe Trp Glu Gln Gly Gly Leu Cys Lys Ala Leu Gln Glu Gln Cys Arg
                                 25
Phe Pro
<210> 171
<211> 34
<212> PRT
<213> Human T-cell lymphotropic virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : Bio
<400> 171
Xaa Gly Gly Pro Pro Pro Pro Ser Ser Pro Thr His Asp Pro Pro Asp
                                     10
                  5
```

Ser Asp Pro Gln Ile Pro Pro Pro Tyr Val Glu Pro Thr Ala Pro Gln

20 25 30

Val Leu

```
<210> 172
<211> 21
<212> PRT
<213> Human T-cell lymphotropic virus
<220>
                                    الأنف المعييات أراف الحالب
<221> VARIANT
<222> (1)
<223> modified site : Bio
<400> 172
Xaa Gly Gly Lys Lys Pro Asn Arg Gln Gly Leu Gly Tyr Tyr Ser Pro
                                                           15
                                      10
Ser Tyr Asn Asp Pro
             20
<210>. 173
<211> 39
<212> PRT
<213> Human T-cell lymphotropic virus
<220>
<221> VARIANT
<222> (1)
<223> modified site
<400> 173
Xaa Gly Gly Asp Ala Pro Gly Tyr Asp Pro Leu Trp Phe Ile Thr Ser
                                      10
Glu Pro Thr Gln Pro Pro Pro Thr Ser Pro Pro Leu Val His Asp Ser
                                  25
             20
Asp Leu Glu His Val Leu Thr
         35
<210> 174
<211> 41
<212> PRT
<213> Human T-cell lymphotropic virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : Bio
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Xaa Gly Gly Tyr Ser Cys Met Val Cys Val Asp Arg Ser Ser Leu Ser
Ser Trp His Val Leu Tyr Thr Pro Asn Ile Ser Ile Pro Gln Gln Thr
                              25
Ser Ser Arg Thr Ile Leu Phe Pro Ser
       35
<210> 175
<211> 33
<212> PRT
<213> Human T-cell lymphotropic virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : Bio
<400> 175
Xaa Gly Gly Pro Thr Thr Pro Pro Pro Pro Pro Pro Pro Ser Pro
       10
Glu Ala His Val Pro Pro Pro Tyr Val Glu Pro Thr Thr Gln Cys
20
                             25
Phe
<210> 176
<211> 14
<212> PRT
<213> Human immunodeficiency virus
<220>
<221> VARIANT
<222> (1)
<223> modified site : Bio
<400> 176
Xaa Gly Gly Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys
                                 10
 1 5
<210> 177
<211> 13
<212> PRT
<213> Human immunodeficiency virus
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<220>

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<221> VARIANT
<222> (13)
<223> modified site : Lys (Bio)
<400> 177
Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Gly Gly Xaa
                                     10
<210> 178
<211> 9
 <212> PRT
 <213> Hepatitis C virus
 <400> 178
Met Ser Thr Ile Pro Lys Pro Gln Arg
 <210> 179
 <211> 9.
 <212> PRT
 <213> Hepatitis C virus
 <400> 179
 Ser Thr Ile Pro Lys Pro Gln Arg Lys
 <210> 180
 <211> 9
 <212> PRT
</
 <400> 180
 Thr Ile Pro Lys Pro Gln Arg Lys Thr
 <210> 181
 <211> 9
 <212> PRT
 <213> Hepatitis C virus
 <400> 181
 Ile Pro Lys Pro Gln Arg Lys Thr Lys
 <210> 182
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<211> 9 <212> PRT

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<213> Hepatitis C virus
<400> 182
Pro Lys Pro Gln Arg Lys Thr Lys Arg
<210> 183
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 183
Lys Pro Gln Arg Lys Thr Lys Arg Asn
<210> 184
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 184
Pro Gln Arg Lys Thr Lys Arg Asn Thr
 1
                  5
<210> 185
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 185
Gln Arg Lys Thr Lys Arg Asn Thr Asn
                  5
 1
<210> 186
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 186
Arg Lys Thr Lys Arg Asn Thr Asn Arg
  1
<210> 187
<211> 9
<212> PRT
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<213> Hepatitis C virus

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Lys Thr Lys Arg Asn Thr Asn Arg Arg
<210> 188
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 188
Thr Lys Arg Asn Thr Asn Arg Arg Pro
<210> 189
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 189
Lys Arg Asn Thr Asn Arg Arg Pro Gln
            . 5
<210> 190
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 190
Arg Asn Thr Asn Arg Arg Pro Gln Asp
<210> 191
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 191
Asn Thr Asn Arg Arg Pro Gln Asp Val
 1
<210> 192
<211> 9
<212> PRT
<213> Hepatitis C virus
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Thr Asn Arg Arg Pro Gln Asp Val Lys

<400> 187

<400> 192

<210> 193 <211> 9

<212> PRT

<213> Hepatitis C virus

<400> 193

Asn Arg Arg Pro Gln Asp Val Lys Phe
1 5

the state of the

<210> 194

<211> 9

<212> PRT

<213> Hepatitis C virus

<400> 194

Arg Arg Pro Gln Asp Val Lys Phe Pro 1 5

<210> 195

<211> 9

<212> PRT

<213> Hepatitis C virus

<400> 195

Arg Pro Gln Asp Val Lys Phe Pro Gly
1 5

<210> 196

<211> 9

<212> PRT

<213> Hepatitis C virus

<400> 196

Pro Gln Asp Val Lys Phe Pro Gly Gly
1 5

<210> 197

<211> 9

<212> PRT

<213> Hepatitis C virus

<400> 197

Gln Asp Val Lys Phe Pro Gly Gly Gly

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<210> 198
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 198
Asp Val Lys Phe Pro Gly Gly Gln
 1
<210> 199
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 199
Val Lys Phe Pro Gly Gly Gly Gln Ile
<210> 200
<211> 9
<212> PRT
<213> Hepatitis C virus
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Lys Phe Pro Gly Gly Gly Gln Ile Val
<210> 201
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 201
          Phe Pro Gly Gly Gln Ile Val Gly
 1
<210> 202
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 202
Pro Gly Gly Gln Ile Val Gly Gly
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<210> 203
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 203
Gly Gly Gln Ile Val Gly Gly Val
  1
<210> 204
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 204
Gly Gly Gln Ile Val Gly Gly Val Tyr
                  5
<210> 205
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 205
Gly Gln Ile Val Gly Gly Val Tyr Leu
                  5
  1
<210> 206
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 206
Gln Ile Val Gly Gly Val Tyr Leu Leu
                 5
  1.
<210> 207
 <211> 9
 <212> PRT
 <213> Hepatitis C virus
 <400> 207
 Ile Val Gly Gly Val Tyr Leu Leu Pro
                  5
   1
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<210> 208 <211> 9

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<212> PRT
 <213> Hepatitis C virus
 <400> 208
 Val Gly Gly Val Tyr Leu Leu Pro Arg
 <210> 209
 <211> 9
 <212> PRT
 <213> Hepatitis C virus
 <400> 209
 Gly Gly Val Tyr Leu Leu Pro Arg Arg
 <210> 210
 <211> 9
 <212> PRT
 <213> Hepatitis C virus
 <400> 210
 Gly Val Tyr Leu Leu Pro Arg Arg Gly
 <210> 211
 <211> 9
 <212> PRT
 <213> Hepatitis C virus
<400> 211
 Val Tyr Leu Leu Pro Arg Arg Gly Pro
  1 5
 <210> 212
 <211> 9
 <212> PRT
 <213> Hepatitis C virus
 <400> 212
 Tyr Leu Leu Pro Arg Arg Gly Pro Arg
   1
```

<210> 213 <211> 9 <212> PRT <213> Hepatitis C virus

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<400> 213
Leu Leu Pro Arg Arg Gly Pro Arg Leu
                  5
<210> 214
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 214
Leu Pro Arg Arg Gly Pro Arg Leu Gly
                  5
<210> 215
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 215
Pro Arg Arg Gly Pro Arg Leu Gly Val
<210> 216
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 216
Arg Arg Gly Pro Arg Leu Gly Val Arg
                  5
<210> 217
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 217
Arg Gly Pro Arg Leu Gly Val Arg Ala
                  5
  1
<210> 218
<211> 9
<212> PRT
<213> Hepatitis C virus
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Gly Pro Arg Leu Gly Val Arg Ala Thr
                 5
<210> 219
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 219
Pro Arg Leu Gly Val Arg Ala Thr Arg
<210> 220
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 220
Arg Leu Gly Val Arg Ala Thr Arg Lys
<210> 221
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 221
Leu Gly Val Arg Ala Thr Arg Lys Thr
1
                 5
<210> 222
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 222
Gly Val Arg Ala Thr Arg Lys Thr Ser
<210> 223
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 223
Val Arg Ala Thr Arg Lys Thr Ser Glu
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<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 224
Arg Ala Thr Arg Lys Thr Ser Glu Arg
                 5
<210> 225
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 225
Ala Thr Arg Lys Thr Ser Glu Arg Ser
                5
<210> 226
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 226
Thr Arg Lys Thr Ser Glu Arg Ser Gln
                 5
<210> 227
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 227
Arg Lys Thr Ser Glu Arg Ser Gln Pro
                 5
<210> 228
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 228
Lys Thr Ser Glu Arg Ser Gln Pro Arg
```

. ...

<210> 224

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<210> 229
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 229
Thr Ser Glu Arg Ser Gln Pro Arg Gly
<210> 230
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 230
Ser Glu Arg Ser Gln Pro Arg Gly Arg
         5
<210> 231
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 231
Glu Arg Ser Gln Pro Arg Gly Arg Arg
<210> 232 .
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 232
Arg Ser Gln Pro Arg Gly Arg Arg Gln
 1
<210> 233
<211> 9
<212> PRT
<213> Hepatitis C virus
<400> 233
Ser Gln Pro Arg Gly Arg Arg Gln Pro
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عاقب بعضويها الهارامية
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<210> 395
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 <212> PRT
 <213> Hepatitis C virus
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 Leu Pro Pro Pro Lys Ser Pro Pro Val
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 <212> PRT
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 Pro Pro Pro Lys Ser Pro Pro Val Pro
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 <212> PRT
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 <400> 397
 Pro Pro Lys Ser Pro Pro Val Pro Pro
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  <213> Hepatitis C virus
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  Pro Lys Ser Pro Pro Val Pro Pro Pro
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  Lys Ser Pro Pro Val Pro Pro Pro Arg
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Ser Pro Pro Val Pro Pro Pro Arg Lys
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Pro Pro Val Pro Pro Pro Arg Lys Lys
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       amino acid, OH-group, NH2-group, or a linkage
       involv-ing these two groups
 <400> 402
 Xaa Met Ser Thr Ile Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr
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 Asn Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val
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 Gly Xaa
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<210> 403 <211> 41 <212> PRT

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     amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 403
Xaa Gly Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val
                                      10
Arg Ala Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg
             20
Gln Pro Ile Pro Lys Val Arg Arg Xaa
        ·35
<210> 404
<211> 34
<212> PRT
<213> Hepatitis C virus
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      amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 404
Xaa Ser Gln His Leu Pro Tyr Ile Glu Gln Gly Met Met Leu Ala Glu
                                      10
Gln Phe Lys Gln Lys Ala Leu Gly Leu Leu Gln Thr Ala Ser Arg Gln
                                  25
             20
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Ala Xaa

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<210> 405
<211> 34
<212> PRT
<213> Hepatitis C virus
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      amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 405
Xaa Glu Asp Glu Arg Glu Ile Ser Val Pro Ala Glu Ile Leu Arg Lys
                                      10
  1
Ser Arg Arg Phe Ala Gln Ala Leu Pro Val Trp Ala Arg Pro Asp Tyr
             20
Asn Xaa
<210> 406
<211> 22
<212> PRT
<213> Hepatitis C virus
<400> 406
Gly Glu Thr Tyr Thr Ser Gly Gly Ala Ala Ser His Thr Thr Ser Thr
                                     10
                                                          15
Leu Ala Ser Leu Phe Ser
             20
<210> 407
<211> 24
<212> PRT
<213> Hepatitis C virus
Ser His Thr Thr Ser Thr Leu Ala Ser Leu Phe Ser Pro Gly Ala Ser
                                      10
                   5
  1
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Gln Arg Ile Gln Leu Val Asn Thr

```
<210> 408
<211> 22
<212> PRT
<213> Hepatitis C virus
<400> 408
Gly His Thr Arg Val Ser Gly Gly Ala Ala Ala Ser Asp Thr Arg Gly
Leu Val Ser Leu Phe Ser
            20
<210> 409
<211> 24
<212> PRT
<213> Hepatitis C virus
<400> 409
Ala Ser Asp Thr Arg Gly Leu Val Ser Leu Phe Ser Pro Gly Ser Ala
                                   10
Gln Lys Ile Gln Leu Val Asn Thr
             20
<210> 410
<211> 22
<212> PRT
<213> Hepatitis C virus
<400> 410
Gly His Thr Arg Val Thr Gly Gly Val Gln Gly His Val Thr Cys Thr
                 5 .
 . 1
Leu Thr Ser Leu Phe Arg
             20
<210> 411
<211> 24
<212> PRT
<213> Hepatitis C virus
 <400> 411
Gly His Val Thr Cys Thr Leu Thr Ser Leu Phe Arg Pro Gly Ala Ser
                                10 15
                  5
 Gln Lys Ile Gln Leu Val Asn Thr
             20
```

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<210> 412
<211> 22
<212> PRT
<213> Hepatitis C virus
<400> 412
Gly His Thr His Val Thr Gly Gly Arg Val Ala Ser Ser Thr Gln Ser
                                  10
 1
Leu Val Ser Trp Leu Ser
            20
<210> 413
<211> 24
<212> PRT
<213> Hepatitis C virus
<400> 413
Ala Ser Ser Thr Gln Ser Leu Val Ser Trp Leu Ser Gln Gly Pro Ser
                                  10
Gln Lys Ile Gln Leu Val Asn Thr
            20
<210> 414
<211> 22
<212> PRT
<213> Hepatitis C virus
<400> 414
Gly Asp Thr His Val Thr Gly Gly Ala Gln Ala Lys Thr Thr Asn Arg
           5 10 15
  1
Leu Val Ser Met Phe Ala
 <210> 415
 <211> 24
 <212> PRT
 <213> Hepatitis C virus
 <400> 415
 Ala Lys Thr Thr Asn Arg Leu Val Ser Met Phe Ala Ser Gly Pro Ser
                                    10
 Gln Lys Ile Gln Leu Ile Asn Thr
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<210> 416
<211> 22
<212> PRT
<213> Hepatitis C virus
<400> 416
Ala Glu Thr Tyr Thr Ser Gly Gly Asn Ala Gly His Thr Met Thr Gly
Ile Val Arg Phe Phe Ala
             20
<210> 417
<211> 24
<212> PRT
<213> Hepatitis C virus
<400> 417
Gly His Thr Met Thr Gly Ile Val Arg Phe Phe Ala Pro Gly Pro Lys
                5
                                     10
  1
Gln Asn Val His Leu Ile Asn Thr
            20
<210> 418
<211> 22
<212> PRT
<213> Hepatitis C virus
Ala Glu Thr Ile Val Ser Gly Gly Gln Ala Ala Arg Ala Met Ser Gly
                                  . 10
Leu Val Ser Leu Phe Thr
             20
<210> 419
 <211> 24
 <212> PRT
 <213> Hepatitis C virus
 <400> 419
Ala Arg Ala Met Ser Gly Leu Val Ser Leu Phe Thr Pro Gly Ala Lys
                                      10
 Gln Asn Ile Gln Leu Ile Asn Thr
```

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<210> 420
<211> 22
<212> PRT
<213> Hepatitis C virus
<400> 420
Ala Glu Thr Tyr Thr Thr Gly Gly Ser Thr Ala Arg Thr Thr Gln Gly
Leu Val Ser Leu Phe Ser
           20
<210> 421
<211> 24
<212> PRT
<213> Hepatitis C virus
<400> 421
Ala Arg Thr Thr Gln Gly Leu Val Ser Leu Phe Ser Arg Gly Ala Lys
                                   10
            ·5
Gln Asp Ile Gln Leu Ile Asn Thr
            20
<210> 422
<211> 6
<212> PRT
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<400> 422
 Pro Gln Arg Lys Thr Lys
  1 5
 <210> 423
 <211> 7
 <212> PRT
 <213> Hepatitis C virus
 <400> 423
 Lys Thr Lys Arg Asn Thr Asn
  1 .
<210> 424
 <211> 7
 <212> PRT
 <213> Hepatitis C virus
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<400> 424

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<210> 425
<211> 6
<212> PRT
<213> Hepatitis C virus
<400> 425
Tyr Leu Leu Pro Arg Arg
 1 . 5
<210> 426
<211> 7
<212> PRT
<213> Hepatitis C virus
<400> 426
Pro Arg Arg Gly Pro Arg Leu
<210> 427
<211> 7
<212> PRT
<213> Hepatitis C virus
<400> 427
Arg Leu Gly Val Arg Ala Thr
 1
<210> 428
<211> 7
<212> PRT
<213> Hepatitis C virus
<400> 428
Ser Gln Pro Arg Gly Arg Arg
<210> 429
<211> 7
<212> PRT
<213> Hepatitis C virus
<400> 429
Arg Arg Gln Pro Ile Pro Lys
 1
```

Pro Gln Asp Val Lys Phe Pro

1

5

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<213> Hepatitis C virus
<400> 430
Arg Thr Trp Ala Gln Pro
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<210> 431
<211> 8
<212> PRT
<213> Hepatitis C virus
<400> 431
Gln Pro Gly Tyr Pro Trp Pro Leu
  1
<210> 432
<211> 6
<212> PRT
<213> Hepatitis C virus
<400> 432
Pro Asp Arg Glu Val Leu
 _ 1
<210> 433
<211> 6
<212> PRT
<213> Hepatitis C virus
<400> 433
His Leu Pro Tyr Ile Glu
                  5
 1
<210> 434
<211> 8
<212> PRT
<213> Hepatitis C virus
<400> 434
Tyr Ile Glu Gln Gly Met Met Leu
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<210> 430

<211> 6 <212> PRT

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<210> 435
<211> 7
<212> PRT
<213> Hepatitis C virus
<400> 435
Ala Glu Gln Phe Lys Gln Lys
1
                5
<210> 436
<211> 6
<212> PRT
<213> Hepatitis C virus
<400> 436
Lys Gln Lys Ala Leu Gly
                5
  1
<210> 437
<211> 7
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<400> 437
Leu Gly Leu Leu Gln Thr Ala
 1
<210> 438
<211> 7
<212> PRT
<213> Hepatitis C virus
<400> 438
Pro Ala Glu Ile Leu Arg Lys
 1
<210> 439
<211> 7
<212> PRT
<213> Hepatitis C virus
<400> 439
Glu Ile Leu Arg Lys Ser Arg
                 5
  1
```

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<211> 7
<212> PRT
<213> Hepatitis C virus

<400> 440
Gln Ala Leu Pro Val Trp Ala
1 5

<210> 441
<211> 6
<212> PRT
<213> Hepatitis C virus

<400> 441
Pro Asp Tyr Asn Pro Pro
1 5
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<210> 442 <211> 7 <212> PRT <213> Hepatitis C virus <400> 442 Leu Val Glu Thr Trp Lys Lys 1

<210> 443 <211> 6 <212> PRT <213> Hepatitis C virus <400> 443 Asp Tyr Glu Pro Pro Val 1 5

<210> 444
<211> 5
<212> PRT
<213> Hepatitis C virus
<400> 444
His Gly Cys Pro Leu
1 5

<210> 445 <211> 20 <212> PRT

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Gly Ala Leu Val Ala Phe Lys Ile Met Ser Gly Glu Val Pro Ser Thr
<400> 445
                                   10
                 5
Glu Asp Leu Val
<210> 446
<211> 20
<212> PRT
<213> Hepatitis C virus
<400> 446
Val Pro Ser Thr Glu Asp Leu Val Asn Leu Leu Pro Ala Ile Leu Ser
                                     10
                  5
Pro Gly Ala Leu
             20
<210> 447
<211> 20
<212> PRT
<213> Hepatitis C virus
 <400> 447
Ala Ile Leu Ser Pro Gly Ala Leu Val Val Gly Val Val Cys Ala Ala
          - 5
 Ile Leu Arg Arg
              20
 <210> 448
 <211> 20
 <212> PRT
 <213> Hepatitis C virus
 <400> 448
 Val Cys Ala Ala Ile Leu Arg Arg His Val Gly Pro Gly Glu Gly Ala
                                    10
 Val Gln Trp Met
              20
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<213> Hepatitis C virus

<210> 449 <211> 20 <212> PRT

<213> Hepatitis C virus

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<400> 449
Gly Glu Gly Ala Val Gln Trp Met Asn Arg Leu Ile Ala Phe Ala Ser 1 5 10 15
Arg Gly Asn His
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<210> 450 <211> 34 <212> PRT <213> Hepatitis C virus

<400> 450
Gly Gly Ile Pro Asp Arg Glu Val Leu Tyr Arg Gly Gly Lys Lys Pro
1 5 10 15

Asp Thr Tyr Glu Pro Pro Val Gly Gly Arg Arg Pro Gln Asp Val Lys 20 25 30

Phe Pro

<210> 451 <211> 33 <212> PRT <213> Hepatitis C virus

<400> 451
Gly Gly Trp Ala Arg Pro Asp Tyr Asn Pro Pro Gly Gly Gln Phe Lys
1 5 10 15

Gln Lys Ala Leu Gly Leu Gly Ser Gly Val Tyr Leu Leu Pro Arg Arg 20 25 30

Gly .

<210> 452 <211> 33 <212> PRT <213> Hepatitis C virus

Leu Pro Tyr Ile Glu Gln Ser Gly Pro Val Val His Gly Cys Pro Leu 20 25 30

Pro

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<210> 453
<211> 36
<212> PRT
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<221> VARIANT
<222> (36)
<223> Xaa = modified site : when present, represents an
      amino acid, OH-group, NH2-group, or a linkage
     involv-ing these two groups
<400> 453
Ala Gly Glu Thr Tyr Thr Ser Gly Gly Ala Ala Ser His Thr Thr Ser
                                      10
Thr Leu Ala Ser Leu Phe Ser Pro Gly Ala Ser Gln Arg Ile Gln Leu
                                                       30
                                  25
             20
Val Asn Thr Glx
         35
<210> 454
<211> 36
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       amino acid, OH-group, NH2-group, or a linkage
       involv-ing these two groups
 <400> 454
 Ala Gly His Thr Arg Val Ser Gly Gly Ala Ala Ala Ser Asp Thr Arg
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Gly Leu Val Ser Leu Phe Ser Pro Gly Ser Ala Gln Lys Ile Gln Leu
                                  25
Val Asn Thr Glx
         35
<210> 455
<211> 36
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<213> Hepatitis C virus
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<221> VARIANT
<222> (36)
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      amino acid, OH-group, NH2-group, or a linkage
     involv-ing these two groups
Ala Gly His Thr Arg Val Thr Gly Gly Val Gln Gly His Val Thr Cys
                                      10
Thr Leu Thr Ser Leu Phe Arg Pro Gly Ala Ser Gln Lys Ile Gln Leu
                                  25
Val Asn Thr Glx
         35
<210> 456
<211> 36
<212> PRT
<213> Hepatitis C virus
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<223> Xaa = modified site : when present, represents an amino acid, OH-group, NH2-group, or a linkage

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<221> VARIANT <222> (36)

involv-ing these two groups <400> 456 Ala Gly His Thr His Val Thr Gly Gly Arg Val Ala Ser Ser Thr Gln 10 Ser Leu Val Ser Trp Leu Ser Gln Gly Pro Ser Gln Lys Ile Gln Leu 25 Val Asn Thr Glx 35

<210> 457 <211> 36 <212> PRT <213> Hepatitis C virus <220>

<221> VARIANT <222> (1)

<223> Xaa = modified site : when present, represents an amino acid, amino group, or chemically modified amino terminus

<220> <221> VARIANT <222> (1)

<223> Xaa = modified site : when present, represents an amino acid, OH-group, NH2-group, or a linkage involv-ing these two groups

<400> 457 Ala Gly Asp Thr His Val Thr Gly Gly Ala Gln Ala Lys Thr Thr Asn 15

Arg Leu Val Ser Met Phe Ala Ser Gly Pro Ser Gln Lys Ile Gln Leu 25 20

Ile Asn Thr Glx 35

<210> 458 <211> 36 <212> PRT <213> Hepatitis C virus <220> <221> VARIANT

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<222> (36)
<223> Xaa = modified site : when present, represents an
      amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 458
Ala Ala Glu Thr Tyr Thr Ser Gly Gly Asn Ala Gly His Thr Met Thr
                  5
                                     10
Gly Ile Val Arg Phe Phe Ala Pro Gly Pro Lys Gln Asn Val His Leu
                                  25
Ile Asn Thr Glx
       35.
<210> 459
<211> 36
<212> PRT
<213> Hepatitis C virus ...
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<221> VARIANT
<222> (36)
<223> Xaa = modified site : when present, represents an
      amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 459
Ala Ala Glu Thr Ile Val Ser Gly Gly Gln Ala Ala Arg Ala Met Ser
                                     10
                 _5
  1
Gly Leu Val Ser Leu Phe Thr Pro Gly Ala Lys Gln Asn Ile Gln Leu
                                  25
             .20
Ile Asn Thr Glx
         35
<210> 460
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<213> Hepatitis C virus
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<222> (1) <223> Xaa = modified site : when present, represents an amino acid, amino group, or chemically modified amino terminus <220> <221> VARIANT <222> (36) <223> Xaa = modified site : when present, represents an amino acid, OH-group, NH2-group, or a linkage involv-ing these two groups <400> 460 Ala Ala Glu Thr Tyr Thr Thr Gly Gly Ser Thr Ala Arg Thr Thr Gln 1 Gly Leu Val Ser Leu Phe Ser Arg Gly Ala Lys Gln Asp Ile Gln Leu 25 20 Ile Asn Thr Glx <210> 461 <211> 24 <212> PRT <213> Hepatitis C virus <220> <221> VARIANT <222> (1) <223> Xaa = modified site : when present, represents an amino acid, amino group, or chemically modified amino terminus <220> <221> VARIANT <222> (24) <223> Xaa = modified site : when present, represents an amino acid, OH-group, NH2-group, or a linkage involv-ing these two groups

<400> 461

Ala Gly Glu Thr Tyr Thr Ser Gly Gly Ala Ala Ser His Thr Thr Ser 1 5 10 15

Thr Leu Ala Ser Leu Phe Ser Glx 20

<210> 462 <211> 26 <212> PRT <213> Hepatitis C virus <220> <221> VARIANT <222> (1) <223> Xaa = modified site : when present, represents an amino acid, amino group, or chemically modified amino terminus <220> <221> VARIANT <222> (26) <223> Xaa = modified site : when present, represents an amino acid, OH-group, NH2-group, or a linkage involv-ing these two groups <400> 462 Ala Ser His Thr Thr Ser Thr Leu Ala Ser Leu Phe Ser Pro Gly Ala 5 10 Ser Gln Arg Ile Gln Leu Val Asn Thr Glx 20 <210> 463 <211> 2.4 <212> PRT <213> Hepatitis C virus <220> <221> VARIANT <222> (1) <223> Xaa = modified site : when present, represents an amino acid, amino group, or chemically modified amino terminus <220> <221> VARIANT <222> (24) <223> Xaa = modified site : when present, represents an amino acid, OH-group, NH2-group, or a linkage involv-ing these two groups <400> 463 Ala Gly His Thr Arg Val Ser Gly Gly Ala Ala Ala Ser Asp Thr Arg Gly Leu Val Ser Leu Phe Ser Glx 20

<210> 464 <211> 26 <212> PRT <213> Hepatitis C virus

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      amino acid, amino group, or chemically modified
      amino terminus
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<222> (26)
<223> Xaa = modified site : when present, represents an
      amino acid, OH-group, NH2-group, or a linkage
       involv-ing these two groups
<400> 464
Ala Ala Ser Asp Thr Arg Gly Leu Val Ser Leu Phe Ser Pro Gly Ser
                                                          15
  1
Ala Gln Lys Ile Gln Leu Val Asn Thr Glx
 <210> 465
 <211> 24
 <212> PRT
 <213> Hepatitis C virus
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       amino terminus
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 <221> VARIANT
 <222> (24)
 <223> Xaa = modified site : when present, represents an
       amino acid, OH-group, NH2-group, or a linkage
       involv-ing these two groups
 <400> 465
 Ala Gly His Thr Arg Val Thr Gly Gly Val Gln Gly His Val Thr Cys
                                       10
 Thr Leu Thr Ser Leu Phe Arg Glx
               20
 <210> 466
 <211> 26
  <212> PRT
 <213> Hepatitis C virus
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<222> (26)
<223> Xaa = modified site : when present, represents an
      amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 466
Ala Gly His Val Thr Cys Thr Leu Thr Ser Leu Phe Arg Pro Gly Ala
                                      10
                  5
  1
Ser Gln Lys Ile Gln Leu Val Asn Thr Glx
<210> 467
<211> 24
<212>. PRT
<213> Hepatitis C virus
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      amino acid, amino group, or chemically modified
       amino terminus
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<223> Xaa = modified site : when present, represents an amino acid, OH-group, NH2-group, or a linkage

Ala Gly His Thr His Val Thr Gly Gly Arg Val Ala Ser Ser Thr Gln

10

15

involv-ing these two groups

5

Ser Leu Val Ser Trp Leu Ser Glx 20

<213> Hepatitis C virus

<222> (24)

<400> 467

<210> 468 <211> 26 <212> PRT

<220>

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      amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 468
Ala Ala Ser Ser Thr Gln Ser Leu Val Ser Trp Leu Ser Gln Gly Pro
                                      10
Ser Gln Lys Ile Gln Leu Val Asn Thr Glx
             20
<210> 469
<211> 24
<212> PRT
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<222> (24)
<223> Xaa = modified site : when present, represents an
      amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 469
Ala Gly Asp Thr His Val Thr Gly Gly Ala Gln Ala Lys Thr Thr Asn
                                      10
Arg Leu Val Ser Met Phe Ala Glx
             20
<210> 470
<211> 26
<212> PRT
<213> Hepatitis C virus
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amino acid, amino group, or chemically modified amino terminus

<221> VARIANT <222> (26) <223> Xaa = modified site : when present, represents an

amino acid, OH-group, NH2-group, or a linkage involv-ing these two groups

<400> 470

<220>

Ala Ala Lys Thr Thr Asn Arg Leu Val Ser Met Phe Ala Ser Gly Pro 15 10 1

Ser Gln Lys Ile Gln Leu Ile Asn Thr Glx 20

<210> 471

<211> 24

<212> PRT

<213> Hepatitis C virus

<220>

<221> VARIANT

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<220>

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<400> 471

Ala Ala Glu Thr Tyr Thr Ser Gly Gly Asn Ala Gly His Thr Met Thr 10 --- 15 ---5

Gly Ile Val Arg Phe Phe Ala Glx 20

<210> 472

<211> 26

<212> PRT

<213> Hepatitis C virus

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<221> VARIANT

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## amino terminus

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<222> (26)
<223> Xaa = modified site : when present, represents an
      amino acid, OH-group, NH2-group, or a linkage
      involv-ing these two groups
<400> 472
Ala Gly His Thr Met Thr Gly Ile Val Arg Phe Phe Ala Pro Gly Pro
Lys Gln Asn Val His Leu Ile Asn Thr Glx
        20
<210> 473
<211> 24
<212> PRT
<213> Hepatitis C virus
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<221> VARIANT
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    amino terminuss
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Gly Leu Val Ser Leu Phe Thr Glx
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amino acid, amino group, or chemically modified

amino terminus

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Lys Gln Asn Ile Gln Leu Ile Asn Thr Glx
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amino terminus

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 Lys Gln Asp Ile Gln Leu Ile Asn Thr Glx
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involv-ing these two groups
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Ala Pro Gln Arg Lys Thr Lys Arg Asn Thr Glx

amino acid, OH-group, NH2-group, or a linkage

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Ala Asp Val Lys Phe Pro Gly Gly Gly Gln Glx

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Ala Trp Ala Gln Pro Gly Tyr Pro Trp Pro Glx

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                                      10
                  5
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## amino terminus

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involv-ing these two groups

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## amino terminus

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## involv-ing these two groups Ala Ser Pro Pro Val Pro Pro Pro Arg Lys Glx 5

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amino terminus

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